Amendment to the Claims:

This listing of claims will replace all versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 – 8 (Cancelled)

9. (Original) A frequency modulated spread spectrum clock generator comprising:

means adapted for receiving a periodic clock signal having a generally constant frequency;

a frequency divider for generating a lower frequency clock signal from a received periodic clock signal;

a programmable digital delay line adapted to receive the lower frequency clock signal, and including means provide a selected delay to the lower frequency clock signal in accordance with a received digital delay value so as to form a varying frequency clock signal;

a counter for generating a pre-selected digital sequence;

a pattern generator adapted for generating the digital delay value in accordance with the pre-selected digital sequence encoded as frequency modulation data;

a frequency multiplier for increasing a frequency of the varying frequency clock signal so as to generate a spread spectrum clock signal; and

means adapted for communicating the spread spectrum clock signal to an associated digital device.

10. (Original) The spread spectrum clock generator of claim 9 wherein the spread spectrum clock signal has a frequency range between $1/(T-N\Delta)$ and $1/(T+N\Delta)$, wherein T is defined as a period of the clock input signal, N can be any number greater than 1, and Δ is defined as a unit of the selected delay.

11. (Original) The spread spectrum clock generator of claim 10 wherein the frequency range of the spread spectrum clock signal linearly alternates between $1/(T-N\Delta)$ and $1/(T+N\Delta)$.

12. (Original) The spread spectrum clock generator of claim 11 wherein the frequency range of the spread spectrum clock signal varies from -.2% to +.2% of the periodic clock signal.

13. (Currently Amended) The spread spectrum clock generator of claim 12 wherein the pattern generator includes ~~means for generating~~a digital delay value generator to output the digital delay value in accordance with values disposed in a pre-selected truth table.

14. (Currently Amended) The spread spectrum clock generator of claim 11 wherein the counter operates ~~synchronously with~~in response to the periodic clock signal.

Claims 15 – 20 (Cancelled)

21. (New) A frequency modulated spread spectrum clock generator comprising:

a clock input adapted for receiving a clock signal having a generally constant frequency;

a digital delay having:

a delay input coupled to the clock input,

a data input adapted for receiving a delay data representative of a selected delay, the delay data being encoded in a frequency modulation pattern, and

a clock output providing a modified clock signal, the frequency of the modified clock signal is adjusted in accordance with the delay data; and

a numeric sequencer coupled to the clock input and adapted for generating the delay data;

wherein the numeric sequencer includes:

a binary counter adapted for generating a binary output sequence, and

a pattern generator adapted for receiving the binary output sequence from the binary counter;

wherein the pattern generator generates the delay data as a function of the binary output sequence; and

wherein the modified clock signal has a frequency range between $1/(T-N\Delta)$ and $1/(T+N\Delta)$, wherein T is defined as a period of the clock input signal, N is a number greater than 1, and Δ is defined as a unit of the selected delay.

22. (New) The spread spectrum clock generator of claim 21 wherein the frequency range of the modified clock signal linearly alternates between $1/(T-N\Delta)$ and $1/(T+N\Delta)$.

23. (New) The spread spectrum clock generator of claim 22 further comprising a signal conditioner adapted for receiving the modified clock signal and generating a conditioned clock signal in accordance with the modified clock signal.

24. (New) The spread spectrum clock generator of claim 23 wherein the signal conditioner further comprises a frequency multiplier.

25. (New) The spread spectrum clock generator of claim 24 wherein the signal conditioner includes a phase lock loop.

26. (New) A method of spreading a spectrum of an electromagnetic interference generated by an integrated circuit comprising:

receiving a clock signal having a generally constant frequency;

generating a low frequency clock signal in response to the received clock signal;

generating selected numeric output data representative of a selected numeric sequence, the numeric output data being representative of a frequency modulated pattern generated in response to the received clock signal; and

generating a varying frequency clock signal from the low frequency clock signal, the varying frequency clock signal having a delay set in accordance with the selected numeric output sequence;

wherein the step of generating selected numeric output data includes:

incrementing a counter data in response to the received clock signal;

generating a pattern data that corresponds to the counter data; and

generating the selected numeric sequence in accordance with the pattern data; and

wherein the step of generating pattern data includes generating the varying frequency clock signal in accordance with values associated with a pre-selected truth table.

27. (New) The method of spreading a spectrum of claim 26 wherein the varying frequency clock signal has a frequency range between $1/(T-N\Delta)$ and $1/(T+N\Delta)$, wherein T is defined as a period of the clock input signal, N is a number greater than 1, and Δ is defined as a unit of the selected delay.

28. (New) The method of spreading a spectrum of claim 27 wherein the frequency range of the varying frequency clock signal linearly alternates between $1/(T-N\Delta)$ and $1/(T+N\Delta)$.

29. (New) The method of spreading a spectrum of claim 28 wherein the frequency range of the varying frequency clock signal varies from -.2% to +.2% of the periodic clock signal.